



Commonwealth of Virginia Nutrient Trading Program

Goals and Baselines

STAC Workshop

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Allan Brockenbrough, VA DEQ

Legislative Findings and Purposes

2005 General Assembly finds and determines that adoption and utilization of a watershed general permit and market-based point source nutrient credit trading program will assist in:

- a) meeting the nutrient cap load allocations cost-effectively and as soon as possible in keeping with the 2010 timeline and objectives of the Chesapeake 2000 agreement,
- b) accommodating continued growth and economic development in the Chesapeake Bay watershed, and
- c) providing a foundation for establishing market-based incentives to help achieve the Chesapeake Bay Program's nonpoint source reduction goals.

General Permit Registrations

Nutrient Trading General Permit Effective January 1, 2007

119	“Significant” facilities
6	Bubbled “non-significant” facilities
<u>45</u>	New or expanding facilities currently registered
170	Current registrants

Point Source Compliance Trades

2011

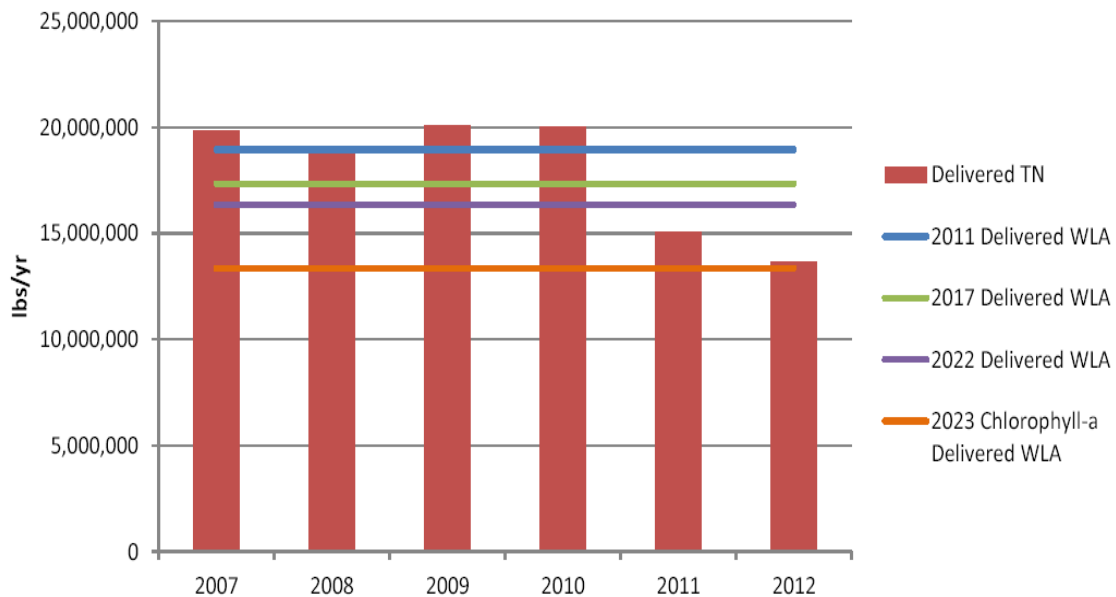
35 facilities	246,309 lbs of TN	1.5% of WLA
	79,128 lbs of TP	4.5% of WLA

2012

26 facilities	288,612 lbs of TN	1.5% of WLA
	37,417 lbs of TP	2.4% of WLA

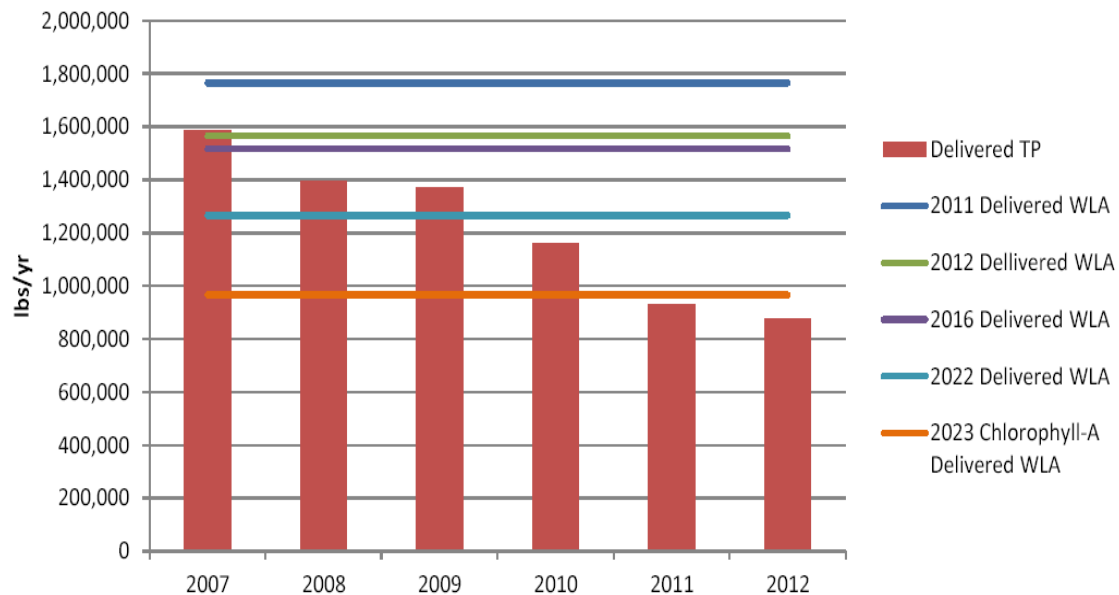
100 of 119 significant facilities trade as members of the Virginia Nutrient Credit Exchange Association.

Statewide Total Nitrogen



Point Source TN loads reduced by 30%

Statewide Total Phosphorus



Point Source TP loads reduced by 45%

CB Watershed Nutrient General Permit Highlights

Calendar year annual TN and TP load limits

Cap & Trade Program

“Bubbling” or aggregate permits

Point Source-to-Point Source trading for existing facilities to meet initial load cap

Point Source-to-Nonpoint Source trading reserved to accommodate new and expanding facilities



Trading Nutrient Reductions from Nonpoint Source Best Management Practices in the Chesapeake Bay Watershed: Guidance for Agricultural Landowners and Your Potential Trading Partners



Practice-based Baseline

- Cropland
 - Nutrient management
 - 35' Buffer along perennial streams
 - Soil conservation to “T”
 - Cover crops
- Hayland
 - Nutrient management
 - 35' Buffer along perennial streams
 - Soil conservation to “T”
- Pasture
 - Nutrient management
 - Livestock stream exclusion for perennial streams
 - 35' Buffer along perennial streams
 - Soil conservation to “T”

Credit Generating Practices

- Cropland
 - Nutrient management – 15% reduction in Nitrogen applications to corn
 - 35' Buffer along perennial streams – Larger size
 - Soil conservation to “T” – Continuous no till
 - Cover crops – Early planted cover crops
- Hayland
 - Nutrient management
 - 35' Buffer along perennial streams – Larger size
 - Soil conservation to “T”
- Pasture
 - Nutrient management
 - Livestock stream exclusion for perennial streams
 - 35' Buffer along perennial streams – Larger size
 - Soil conservation to “T”

Current Status of NPS Trades in VA

- Baseline practices apply to entire FSA Tract
- 2:1 Trading Factor (uncertainty)
- It takes a lot of land!
- No agricultural BMP based trades to date
- Land conversions (and one stormwater BMP) being used to offset post development TP runoff requirements of the VA Stormwater Management Program
- Credits currently available from 8 banks (8 more in development)

Agricultural Certainty

- March 2011 – General Assembly passes HB 1830 establishing Resource Management Plans (RMPs)
- March 2011 – Board authorizes development of regulations
- June 2011- February 2012 – Regulatory Advisory Panel meets
- March 2012 – Board approves proposed regulations
- July-September 2012 – Public comment period
- March 2013 – Board approves final regulations
- December 2013 – Final regulations effective

RMP Process

- Plan development
- Plan review and approval
- Implementation
- Verification of implementation
- Certificate of RMP implementation issued
 - Valid for 9 years
 - Safe harbor – full compliance with TMDLs and state water quality requirements
- Inspections every 3 years (minimum)
- RMP Regulation Development

http://www.dcr.virginia.gov/laws_and_regulations/lr7.shtml

RMP Plan Minimum Standards

- Cropland
 - Nutrient management
 - 35' Buffer along perennial streams
 - Soil conservation to “T”
 - Cover crops (when needed)
- Hayland
 - Nutrient management
 - 35' Buffer along perennial streams
 - Soil conservation to “T”
- Pasture
 - Nutrient management
 - Livestock stream exclusion for perennial streams
 - Pasture management/soil conservation to “T”

Current Baseline Requirement

RMP Requirement

Cropland

Nutrient management
35' Buffer along perennial streams
Soil conservation to "T"
Cover crops

Cropland

Nutrient management
35' Buffer along perennial streams
Soil conservation to "T"
Cover crops (**when needed**)

Hayland

Nutrient management
35' Buffer along perennial streams
Soil conservation to "T"

Hayland

Nutrient management
35' Buffer along perennial streams
Soil conservation to "T"

Pasture

Nutrient management
Livestock stream exclusion
35' Buffer along perennial streams
Soil conservation to "T"

Pasture

Nutrient management
Livestock stream exclusion
~~35' Buffer along perennial streams~~
Soil conservation to "T"/**Pasture management**

CBWM Evaluation of Final Regulations for Resource Management Plans

A	B	C	D	E	F
Land Use Base Data (LU, Septics and Animal #s)	2011	2011	2011	2011	2010
BMP	Model RMP Final Regs March 2013	Model RMP Final Regs Change CC mix	Model RMP Final Regs Change PasBuf	Model RMP Final Regs Change both	Model WIP II
Interim NM-crop, hay, pasture	95%	95%	95%	95%	WIP II
Conservation till (percent of acres)	95%	95%	95%	95%	WIP II
GrassBuffer-Crop	14%	14%	14%	14%	WIP II
Cover crop	50% CCC-LDW	50% mix	50% CCC-LDW	50% mix	WIP II
Conservation Plans-above fall line	95%	95%	95%	95%	WIP II
Conservation Plans-below fall line	2011 Progress	2011 Progress	2011 Progress	2011 Progress	WIP II
GrassBuffer-Hay	6%	6%	6%	6%	WIP II
GrassBuffer-Pasture	6%	6%	6%	6%	WIP II
Pasture Fence	95%	95%	95%	95%	WIP II
Prescribed Graze	95%	95%	95%	95%	WIP II
Streamside GrassBuffers-Pasture	0%	0%	95%	95%	WIP II
Crop, Hay and Pasture Delivered Nitrogen	13,448,331	12,855,709	13,276,720	12,684,496	12,611,023
Crop, Hay and Pasture Delivered Phosphorus	2,695,098	2,690,481	2,680,287	2,675,847	2,799,890
Crop, Hay and Pasture Delivered Sediment	1,640,184,444	1,638,324,392	1,618,818,710	1,617,119,904	1,564,760,800
Crop, Hay and Pasture Delivered N %	86%	96%	89%	99%	100%
Crop, Hay and Pasture Delivered P %	110%	110%	111%	111%	100%
Crop, Hay and Pasture Delivered S %	90%	91%	93%	93%	100%
With 3:1 N and P balancing and WIP II Excess credits applied					
Crop, Hay and Pasture Delivered Nitrogen	12,797,287	12,797,287	12,797,287	12,684,496	12,797,287
Crop, Hay and Pasture Delivered Phosphorus	2,912,113	2,709,955	2,840,098	2,675,847	3,116,641
Crop, Hay and Pasture Delivered Sediment	1,640,184,444	1,638,324,392	1,618,818,710	1,617,119,904	1,975,016,118
Crop, Hay and Pasture Delivered N %	100%	100%	100%	102%	100%
Crop, Hay and Pasture Delivered P %	126%	152%	135%	156%	100%
Crop, Hay and Pasture Delivered S %	188%	189%	194%	195%	100%

2012 Nutrient Trading Act

- March 2012 – General Assembly passes HB 176/SB 77 requiring DCR to establish regulations for the certification of nonpoint source credits (including 5% retirement), establish a credit registry and expand the scope of the nutrient credit exchange program.
- November 2012 - ?? – Regulatory Advisory Panel for credit certification rulemaking meets
- Enactment clause required reevaluation of current 2:1 trading ratio by July 1, 2013. 2 advisory group meetings held and final report is pending.
- Nonpoint source **and point source** credits now available to MS4's, industrial stormwater facilities and new or expanding CAFOs

Major Issues for NPS Credit Certification Rulemaking

- Baseline
- Where does the baseline apply?
- Local water quality

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~~Questions?~~

Discussion